

COASTAL CONSERVANCY

Staff Recommendation
January 19, 2012

GOLETA SLOUGH SEA LEVEL RISE VULNERABILITY ASSESSMENT

Project No. 11-067-01
Project Manager: Rachel Couch

RECOMMENDED ACTION: Authorization to disburse up to \$50,000 to the City of Santa Barbara to update the Goleta Slough Management Plan with a sea level rise vulnerability assessment.

LOCATION: City and County of Santa Barbara, California

PROGRAM CATEGORY: Integrated Coastal and Marine Resources Protection

EXHIBITS

- Exhibit 1: [Project Location and Site Map](#)
 - Exhibit 2: [Draft Goleta Slough Management Plan](#)
 - Exhibit 3: [Figures and Photos](#)
 - Exhibit 4: [Project Letters](#)
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31220 of the Public Resources Code:

“The State Coastal Conservancy hereby authorizes the disbursement of fifty thousand dollars (\$50,000) to the City of Santa Barbara to update to the Goleta Slough Management Plan with a sea level rise vulnerability assessment, subject to the following condition that prior to the disbursement of funds, the Executive Officer of the Conservancy shall approve in writing a work program, budget, schedule and any contractors to be employed for these tasks and evidence that the City shall provide all remaining funds needed to complete the study.”

Staff further recommends that the Conservancy adopt the following findings:

“Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the current Project Selection Criteria and Guidelines.

2. The proposed authorization is consistent with the purposes and objectives of Chapter 5.5 of Division 21 of the Public Resources Code (Section 31220), regarding integrated coastal and marine resources protection.
 3. Goleta Slough has been identified in the Certified Local Coastal Program of the City of Santa Barbara as a resource requiring protection.”
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PROJECT SUMMARY:

The proposed project would provide a grant of \$50,000 to the City of Santa Barbara to update the 1997 Goleta Slough Ecosystem Management Plan (GSEMP) to include a preliminary sea level rise adaptation study. The GSEMP update would be overseen by the Goleta Slough Management Committee and will help the local community develop strategies to preserve environmental and economic resources in the face of a changing climate and future development.

The Goleta Slough is one of the largest coastal wetlands on California’s Central Coast and provides valuable habitat for numerous species. The Slough also encompasses a complex array of land uses including a regional airport, two sanitary district facilities, underground gas storage facilities and pipelines, other utilities infrastructure, several businesses, a County Park, a state ecological reserve and numerous roads, bridges, and water conveyances, both natural and channelized. Many of the roads in and around Goleta Slough lie at low elevations, including those that connect U.C. Santa Barbara (UCSB) and the Santa Barbara Airport (Airport) with the surrounding community.

Slough conditions could change dramatically in future decades with increased sea levels. Facilities located within the Slough area provide numerous essential services to the community, and are at risk from projected increases in sea levels due to their elevation. Without advance planning, projected changes to the slough could lead to devastating losses of species and ecological functions, as well as hundreds of millions of dollars of direct damages and lost infrastructure and economic productivity.

The Goleta Slough Ecosystem Management Plan was prepared by the Goleta Slough Management Committee (GSMC) and adopted by the City of Santa Barbara in 1997. The purpose of the plan is to provide a comprehensive framework for ecosystem management and impact mitigation within the Goleta Slough ecosystem. The proposed update to the GSEMP will re-evaluate the study area based on projected sea level rise, assess vulnerability and risk to both environmental and human resources, and recommend adaptation strategies. The recommended adaptation strategies will integrate the interests of multiple stakeholders and provide long-term planning guidance to the City, County, and others. The resulting plan update and assessment will inform decisions and recommendations in the Santa Barbara Airport Master Plan currently in development and may also be incorporated into the City’s Local Coastal Program.

This study would be one of the first site-level climate adaptation planning efforts in the State and provides an opportunity to apply the relatively new science of climate change adaptation planning to an important complex of natural and man-made assets potentially at risk. The Goleta Slough is an ideal test case for how adaptation planning can help to solve complex problems related to both habitat values and critical infrastructure needs across jurisdictional boundaries.

The proposed GSEMP update will be coordinated with a larger effort to assess regional vulnerability to climate change led by researchers at UCSB and the Scripps Institution of Oceanography, the County, and local cities.

The City of Santa Barbara has served as steward of surrounding wetlands for over 20 years through its role as facilitator of the Goleta Slough Management Committee. The City Airport Department is interested in maintaining current and accurate information on the Slough management area in order to continue to manage its facilities and resources effectively into the future. The City will contribute resources to the project as well as fund the project manager for the GSEMP Update/SLR Study. Wildlife Conservation Board (WCB) grant monitoring funds from a restoration project in western Goleta Slough are currently being used by GSMC members to prepare an existing conditions report and gap analysis that will assist the effort in establishing current baseline information and describing the restoration efforts and impacts that have occurred in the past 15 years.

Site Description:

Goleta Slough is a large coastal wetland located on the south coast of Santa Barbara County. The Slough represents the northern limit of distribution for several plant and animal species found in southern California estuaries. Historically, the Goleta Slough supported 1,800 acres of tidal salt marsh, but the site has been degraded and greatly reduced in size through both natural sedimentation and artificial filling. In the 1940s, a substantial portion of the western Slough was filled to construct a military airfield, which later became the Santa Barbara Airport (Airport).

The 430 acres of the Slough which are managed by the California Department of Fish and Game (CDFG) and the Airport have been designated the Goleta Slough Ecological Reserve (Exhibit 3). CDFG owns 34 acres that are being restored and are part of that reserve. On January 1, 2012 CDFG designated portions of the Slough below the mean high-tide line as the Goleta Slough State Marine Conservation Area. Additional lands within the Slough study area are owned by UCSB, the County, Sempra Energy, and the Goleta Sanitary District (GSD). The Goleta West Sanitary District (GWSD) leases Airport land for its facilities.

The Goleta Slough provides vital coastal tidal and fresh-water wetland habitat for migratory birds, shorebirds, land mammals, and a wide variety of marine/brackish water species. The Slough is habitat for the Federally-listed endangered tidewater goby, and the State-listed Belding's savannah sparrow and loggerhead shrike. Goleta Slough also serves as nursery for numerous juvenile fish species. While public access is somewhat restricted on Airport property for safety reasons, recreational activities at the Slough include birdwatching, kayaking, biking, jogging, and coastal access at Goleta Beach County Park.

The Airport recently completed a runway safety area project that included relocation of Tecolotito and Carneros Creeks. The project also included restoration of large areas of tidal and non-tidal wetland and upland habitat, and recently completed construction on a new airline terminal. GSD is currently upgrading its treatment facility to allow for full secondary treatment. GWSD is in the process of moving sewer lines that are within the slough to an adjacent road. None of these projects was required to consider sea level rise impacts as they preceded the introduction of recent state CEQA guidelines and requirements.

The Slough is typical of many southern California estuaries in that it has been directly and indirectly subjected to extensive public and private development (airport, buildings, roads, gas

and sanitary utility lines) and extreme flooding events that have caused considerable damage to infrastructure and property. The Slough is vulnerable to inundation from sea-level rise and storm surges as well as siltation along creeks feeding into the Slough.

Project History:

In the past 20 years the Slough ecosystem has benefited from extensive restoration and enhancement projects spearheaded by the Goleta Slough Management Committee (GSMC) through collaborative efforts with local agencies, landowners, and non-profit organizations. None of these restoration or enhancement projects has addressed the predicted effects of climate change, and the Slough, adjacent infrastructure, and development continue to be vulnerable to possible impacts.

In 2010, the GSMC began a discussion on sea-level rise and potential effects on Goleta Slough ecosystem. The GSMC recognized the need to develop a sea-level rise vulnerability assessment of Slough resources to guide future management of the Slough’s resources. Conservancy staff participates in the GSMC and helped to develop the study scope. The GSMC identified several local funding partners, including the Conservancy, to ask for support of the project. Support is secured or pending from each of the entities approached (see “Project Financing” section below).

PROJECT FINANCING

Coastal Conservancy	\$50,000.00
Wildlife Conservation Board	\$50,000.00
City of Santa Barbara	\$20,000.00
UCSB Coastal Fund	\$25,000.00
Goleta Sanitary District	\$10,000.00
Goleta West Sanitary District	<u>\$10,000.00</u>
Total Project Costs	\$165,000.00

The anticipated source of funds is an appropriation to the Conservancy from the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Proposition 84 authorizes the use of these funds to protect and restore the natural habitat values of coastal waters and lands (Section 75060 of the Public Resources Code). Section 75060(b) of the Public Resources Code specifically allocates funding to the Conservancy for expenditure pursuant to the Conservancy’s enabling legislation, Division 21 of the Public Resources Code. The proposed project will protect coastal resources by assisting the stakeholders in the GSMC plan for and adapt to the impacts of climate change. As discussed in the section found immediately below, the project is consistent with Chapter 5.5 of Division 21 of the Public Resources Code.

Matching funds for the project will be contributed by the Wildlife Conservation Board (for the existing conditions report currently underway), City of Santa Barbara, the Goleta Sanitary District, and Goleta West Sanitary District. In addition to these financial contributions, in-kind contributions in the form of staff resources will be extensive, through project review, provision

of necessary data, and participation in the GSMC, which will serve in a technical advisory capacity. Agencies that will provide significant in-kind staff time contributions include: UCSB, County of Santa Barbara, City of Goleta, Department of Fish and Game, and U.S. Fish and Wildlife Service. The Airport is also funding the project manager's time on the project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project would be undertaken pursuant to Chapter 5.5 (Sections 31220) of the Conservancy's enabling legislation, Division 21 of the Public Resources Code, regarding integrated coastal and marine resources protection. Section 31220(a) authorizes the Conservancy to undertake and award grants for projects that meet one or more criteria of Section 31220(b). Consistent with Section 31220(b), the proposed project aims to achieve the following objective: reduces threats to coastal and marine fish and wildlife by assessing risks and vulnerability from impacts of projected sea level rise on the natural and manmade assets of Goleta Slough and identifying adaptation strategies to address these threats.

Section 31220(c) requires that projects funded under Section 31220 be consistent with the Integrated Watershed Management Program established under Section 30947, local watershed management plans, if available, and water quality control plans adopted by the State Water Resources Control Board and regional water quality control boards; and include a monitoring and evaluation component. As discussed in detail below under "Consistency with Local Watershed Management Plan/State Water Quality Control Plan," the proposed project is consistent with local and state watershed plans. In addition, the project includes a monitoring and evaluation component. Consistent with Section 31220(a), which requires consultation with the State Water Resources Control Board (SWRCB) to ensure consistency with Chapter 3 (commencing with Section 30915) of Division 20.4 of the Public Resources Code, staff has notified the SWRCB of the nature of the project and provided the opportunity for comment, input and review.

CONSISTENCY WITH CONSERVANCY'S 2007 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with **Goal 5, Objective A** of the Conservancy's 2007 Strategic Plan, the proposed project will result in a plan for enhancing wetland and upland habitats of the Goleta Slough that incorporates predicted habitat evolutions from climate change.

Consistent with **Goal 6, Objective G** of the Conservancy's 2007 Strategic Plan, the proposed project will assist in the development of a regional approach to the management of shoreline erosion and sediment management for the Santa Barbara Channel region.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on June 4, 2009, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.

2. **Consistency with purposes of the funding source:** See the “Project Financing” section above.
3. **Support of the public:** The project has the support of state and elected officials including Congresswoman Lois Capps, State Senator Tony Strickland, State Assemblymember Das Williams, Santa Barbara County, UC Santa Barbara, and environmental groups including the Land Trust for Santa Barbara County, Santa Barbara Chapter of the Audubon Society and the Santa Barbara Chapter of Surfrider Foundation.
4. **Location:** The proposed project would be located within the coastal zone of Santa Barbara County, the City of Santa Barbara, and the City of Goleta.
5. **Need:** While the City of Santa Barbara has obtained in-kind commitments and matching funds from public agencies and partnering organizations, at this time the management plan update and vulnerability assessment phase cannot move forward without Conservancy assistance.
6. **Greater-than-local interest:** The project will serve to demonstrate a method for downscaling information on projected future sea level rise to a site scale that can be used by local planners. Additionally, the interagency pan-jurisdictional planning effort will serve as a model for coastal resource planning and government agency collaboration that could be readily duplicated statewide.
7. **Sea level rise vulnerability:** The project will create a methodology and products (including geographic information system data layers and maps) for estimating a range of potential future sea level rise scenarios in the Goleta Slough, assess risk and vulnerability of natural and manmade assets, and identify possible adaptation strategies.

Additional Criteria

8. **Urgency:** This project is urgently needed to provide local jurisdictions with reliable and scientifically valid downscaled information, the next step forward in planning for sea level rise at the local level. The current statewide projections of sea level rise and erosion rates is based on best available statewide data and was expressly not intended for use by local planners.
9. **Leverage:** See the “Project Financing” section above.
10. **Conflict resolution:** The Goleta Slough Management Plan was originally designed to proactively address issues affecting the Slough, including development, restoration, and public works projects. The proposed project will allow for continued conflict resolution in the project area by updating the plan to reflect current information and by strategically planning now for a range of future sea level rise scenarios. GSMC has a proven track record of producing results in this complicated jurisdictional setting.
11. **Innovation:** This project will demonstrate an innovate technical approach to planning for impacts of climate change, specifically flooding and coastal erosion in a coastal wetland ecosystem that contains adjacent infrastructure including an airport, roads, and two sanitary districts.
12. **Readiness:** The City of Santa Barbara has demonstrated that it has the expertise, local public support, and administrative capability necessary to commence the project in 2012.

13. **Cooperation:** The project is supported by the Goleta Slough Management Committee comprised of numerous state and local agencies, including the Department of Fish and Game, the County of Santa Barbara, City of Goleta, City of Santa Barbara, UCSB, two sanitary districts, and several NGOs and private companies in the region. These agencies and organizations all have an interest in man-made and/or natural resources in the Goleta Slough and are eager to find opportunities to address potential future risks to those resources.

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed project area falls within the jurisdiction of the Local Coastal Programs (LCP) of the City of Santa Barbara, County of Santa Barbara, and the City of Goleta. Consistency with the LCP for each of these jurisdictions is discussed below.

The City of Santa Barbara has developed a separate LCP component for the Airport and Goleta Slough area that generally requires the management and restoration of the Slough in coordination with safe Airport operations. The proposed project is consistent with the Airport and Goleta Slough LCP as discussed below.

Access Policy A-1 supports limited public use of the Slough for research, education and/or public service. The proposed project would conduct, in coordination with Airport staff, research in the Slough that supports the future protection of wetlands and other sensitive habitats. Environmentally Sensitive Habitat (ESH) Policy C-6 calls for maintenance of tidal action to maintain optimum populations of marine organisms. The project would evaluate the current and estimated tidal wetland dynamics under a range of future sea level rise scenarios and develop possible adaptation strategies to protect and maintain wetland ecosystem function. ESH Policy C-8 states that “only uses compatible with the protection and maintenance of wetland habitat and its open space character are allowed.” The project will study how the wetland habitats and open spaces of the Slough area can be maintained and protected in light of projected future changes in sea levels.

The Coastal Land Use Plan adopted by the County of Santa Barbara in 1982 is the certified Local Coastal Program (LCP) for the County of Santa Barbara, and includes the project area. Section 3.9.1 of the County’s LCP calls for preservation and protection of environmentally sensitive habitats. Section 3.9.4 specifically identifies as environmentally sensitive habitat areas several habitat types occurring in the GSEMP area including wetlands, vernal pools, streams, and White-tailed Kite habitat.

The Goleta Community Plan (GCP), adopted in 1993 as part of the County’s LCP, contains the land use and zoning designations which govern the project area. According to the GCP, the Goleta Slough and surrounding open lands are a “regional ecosystem” worthy of protection.

GCP Policy Bio-GV-1 states, “The County shall designate and provide protection to important or sensitive environmental resources or habitats in the Goleta Planning Area” and GCP Policy Bio-GV-2 states, “Environmentally sensitive habitat and riparian corridors within the Goleta Planning Area shall be protected and where feasible and appropriate, enhanced.”

The proposed project is consistent with the policies of the LCP and GCP in that it will develop management strategies to assist the Slough ecosystem to adapt to projected future sea level rise.

The City of Goleta’s adopted General Plan/Coastal Land Use Plan has been adopted by the City, but not yet certified by the Coastal Commission. Therefore, Coastal Act policies apply for that

jurisdiction in place of an adopted LCP. The City of Goleta currently uses the General Plan policies designated as Coastal Policies (CP) when reviewing current projects in the coastal zone. The proposed project is consistent with several of the policies in the Conservation Element including the following Guiding Principles and Goals (Section 4.2):

1. Protect, maintain, and enhance natural ecosystem processes and functions in Goleta and its environs in order to maintain their natural ecological diversity;
5. Protect water quality and the biological diversity of Goleta Slough and Devereux Slough;
6. Protect and enhance other important aquatic and terrestrial habitats, including those associated with rare, threatened, or endangered species of plants or animals.

The Conservancy Element identifies wetlands, creeks, and riparian areas as some of the environmentally sensitive habitat areas (ESHAs) that require special protection. Policy CE 1.6 states specifically that “ESHAs shall be protected against significant disruption of habitat values, and only uses or development dependent on and compatible with maintaining such resources shall be allowed within ESHAs or their buffers.”

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/STATE WATER QUALITY CONTROL PLAN:

Projects undertaken pursuant to Chapter 5.5 of Public Resources Code Division 21 (Section 31220) must be consistent with local watershed management plans, if available, and with water quality control plans, adopted by the state and regional water boards. The proposed project is consistent with the Water Quality Control Plan for the Central Coastal Basin adopted by the Regional Water Quality Control Board because the project will protect fish and wildlife habitat in a coastal watershed thereby furthering the following beneficial use objectives: cold fresh water habitat, wildlife habitat; rare, threatened or endangered species; migration of aquatic organisms; and spawning, reproduction, and/or early development.

The project is also consistent with the Goleta Slough Management Plan in that it will “update the Plan in coordination with the GSMC through cooperation among landowners, responsible government agencies and public interest groups...”, as stated in Policy A-1. The project is also consistent with a goal of the Plan to “protect and maintain the natural diversity of species, habitat types and ecosystem functions through protection of physical processes which naturally maintain these resources.”

COMPLIANCE WITH CEQA:

The proposed project is statutorily exempt from the California Environmental Quality Act (CEQA), pursuant to Chapter 14 of the California Code of Regulations Section 15262. Consistent with Section 15262, the project will only involve preparation of planning documents specifically a vulnerability assessment, and will consider environmental factors. Upon approval, staff will file a Notice of Exemption for this project.